

The new immigration story

New foreign immigrants fuel population and labor force growth in Massachusetts

ANDREW SUM AND ISHWAR KHATIWADA, WITH SHEILA PALMA

FOREIGN IMMIGRANTS ARE INCREASINGLY CRITICAL TO THE MASSACHUSETTS ECONOMY. BUT THEY BRING WITH THEM MAJOR CHALLENGES FOR POLICY MAKERS.

For decades, foreign immigration, legal and illegal, has played an increasingly important role in generating both population and employment growth in the United States and Massachusetts.¹ New waves of immigrants have been especially critical to the Commonwealth's economy, which has depended on foreign immigrants to offset population losses generated by high levels of domestic out-migration from the state since 1990.² Indeed, during the 1990s and through at least 2003, the net growth of the state's population was totally due to an influx of new foreign immigrants. Between 2000 and 2003 alone, net international migration into Massachusetts was estimated to be nearly 109,000. (More recent data indicate that the number of new foreign immigrants since 2000 is now near 180,000.) Because national data suggest that newly arrived immigrants are undercounted by at least 10 percent, these

numbers likely understate an already dramatic reality: Without this new wave of foreign immigration, the population of Massachusetts would have declined by at least 40,000 and by as much as 110,000 between 2000 and 2003.

This article tracks the growing importance of new foreign immigration to the growth of the state's resident population and labor force since 1990. It also reviews the demographic and socioeconomic composition of these new immigrant inflows, a group upon which the Commonwealth now depends but one that also carries some major policy ramifications and challenges for the state's schools, employers, adult basic education and workforce development systems.

This paper is presented in two parts. The first examines the period from 1900 to 1999; the second updates and presents data for the period 2000 through 2003.

Part I: Population and labor force changes in Massachusetts, 1990 – 2000

Population growth

The resident population of Massachusetts during the 1990s (including all inmates of institutions and armed forces members residing in the state) increased from 6.016 million to 6.349 million, a gain of 333,000 or 5.5 percent (Table 1). During the same decade, however, the state experienced a substantial net outflow of residents to other states. Between 1990 and 1995, the U.S. Census Bureau estimated that net domestic migration into and out of Massachusetts was a negative 186,000. While steady economic and job growth led to a reduced rate of net out-migration between 1995 and 2000, the state still saw 55,000 more people leave Massachusetts to go to other states than people arriving in Massachusetts from other states.³ Thus, over the entire decade, the state experienced a net domestic out-migration of 241,000.

As a result, the Commonwealth was highly dependent on new foreign immigration to achieve its population growth over the 1990s. At the time of the 2000 Census (March/April of 2000), an estimated 350,209 new foreign immigrants were residing in the state. These immigrants had come to the United States at some time since 1990 and were living in Massachusetts when they completed the Census questionnaire. These new immigrants accounted for more than all (105 percent) of the net increase in the state’s population over the decade of the 1990s. Without this new foreign immigration during the 1990s, the resident population of Massachusetts might have declined by nearly 18,000.⁴

Labor force growth

During the 1990s, the Massachusetts resident labor force increased at a very modest pace, growing by only 66,089 or slightly more than two percent,⁵ the fourth-lowest labor force growth rate among the 50 states. As Table 2 shows, more than 97 percent of the growth in the state’s resident labor force over the 1990s was generated by women. Over the same period, nearly 184,000 new immigrants joined the state’s labor force, accounting for 278 percent of the

net growth in the resident labor force. Without this influx of new immigrants into the labor force and absent any compensating responses by the native-born population, the state’s civilian labor force would have shrunk by nearly 118,000 over the decade.

Among males, a decline of 100,000 native-born males in the labor force was offset by an inflow of 102,000 new male immigrants into the Massachusetts labor force. Among women, the number of native-born labor force participants also declined by approximately 17,700 during the decade, but their shrinking numbers were far more than offset by an increase in new immigrant female workers of just under 82,000, as shown in Table 2 and Chart 1. In short, all of the net growth in the state’s female labor force over the past decade was generated by new immigrant workers. But the limited U.S.-based work experience of these new immigrant women, combined with their frequently limited formal schooling and English-speaking proficiencies, will pose a number of important challenges to the state’s workforce development system over the coming decade.

Table 1. Population growth in Massachusetts 1990 – 2000 and contributions of new foreign immigration to that growth

Variable	Value
Population 1990	6,016,425
Population 2000	6,349,097
Increase in population, 1990–2000	332,672
Number of new immigrants living in Massachusetts in 2000	350,209
New immigrants’ share of population growth	105%

Source: 2000 Census of Population and Housing, PUMS files, tabulations by authors.

Who were these new immigrants to Massachusetts during the 1990s?

The long-form questionnaire used in the 2000 Census captured information on the nativity status of each respondent, the country of their birth and the timing of their arrival in the United States. We ranked the countries of birth of all new foreign immigrants residing in Massachusetts at the time of the 2000 Census in order from highest to lowest by the number of new immigrants from their country. A total of 83 different countries or territories sent 500 or more immigrants to Massachusetts over the decade. Table

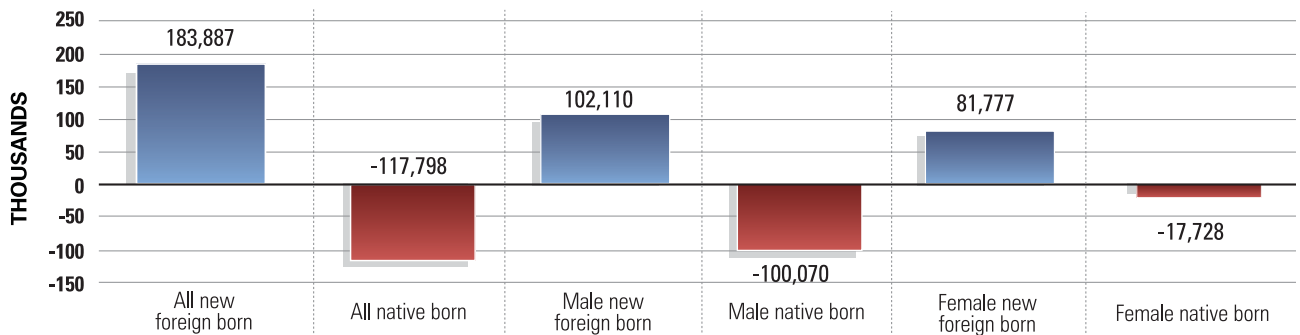
Without this new foreign immigration during the 1990s, the resident population of Massachusetts might have declined by nearly 18,000.

Table 2. New immigrants' contributions to labor force growth in Massachusetts by gender, 1990 – 2000

Labor Force Variable	All	Men	Women
Growth in civilian labor force, 1990 – 2000	66,089	2,040	64,049
Number of new immigrants in labor force	183,887	102,110	81,777
New immigrants' share of labor force growth	278%	5005%	128%

Source: 2000 Census of Population and Housing, 5% PUMS files, tabulations by authors.

Chart 1. Growth of Massachusetts labor force by gender and nativity status, 1990 – 2000



Source: 2000 Census of Population and Housing, 5% PUMS files, tabulations by authors.

3 displays the ten countries/territories that accounted for the largest number of new foreign immigrants.

These ten countries sent a total of 182,163 immigrants, accounting for nearly 52 percent of all new immigrants residing in our state at the time of the 2000 Census.

Table 3. The 10 countries and territories accounting for the largest number of new foreign immigrants in Massachusetts in 2000

Country/Territory	Number
Puerto Rico	37,943
Brazil	26,144
Dominican Republic	21,884
China	19,696
India	18,170
Vietnam	13,510
Russia	12,732
Haiti	12,732
El Salvador	10,841
Colombia	8,672
Total, Above Ten	182,163
% of All New Immigrants	51.9%

Source: 2000 Census of Population and Housing, PUMS files, tabulations by authors

The number of new immigrants from these areas ranged from a high of nearly 38,000 for Puerto Rico to a low of nearly 8,700 for Colombia. Three sources (the Dominican Republic, Haiti and Puerto Rico) were Caribbean, three were in Central and South America, and three were in Asia. Only one European nation (Russia) was among the top ten senders of immigrants. And in not one of these ten countries was English the official language, though many of the well-educated immigrants from India, China and Russia had received some English instruction in their home countries.

Table 4 presents data on key demographic characteristics of these new immigrants. The age and gender characteristics of new immigrants pertain to the entire population, while the educational attainment data represent the schooling backgrounds of those 16 and older. The entire new immigrant population was divided fairly evenly between men and women, with women representing a very slight majority (50.4 percent) of those residing in the state at the time of the 2000 Census. The overwhelming majority — more than 82 percent — of these new immigrants was of working age and a majority (51 percent) was in the 16 to 34 age group, which is the most mobile age group in the nation. Another 24 percent of these immigrants were between 35 and 54 years old. Few of these immigrants were 55 and older.

The educational backgrounds of these immigrants were quite diverse and highlight the significant labor force and social policy implications of this new labor force and

Table 4. Age, gender and educational attainment characteristics of new immigrants residing in Massachusetts at the time of the 2000 Census

Group	Number	Percent
AGE		
Less than 16	62,160	17.7
16-34	179,822	51.2
35-54	83,843	23.9
55+	25,301	7.1
GENDER		
Men	174,243	49.6
Women	176,883	50.4
EDUCATIONAL ATTAINMENT (16+)		
Less than 12 or 12, no diploma	86,932	30.1
H.S. diploma/GED	58,202	20.1
Some college, no degree	40,239	13.9
Associate's degree	11,241	3.9
Bachelor's degree	47,810	16.5
Master's or higher	44,542	15.4

Source: 2000 Census of Population and Housing, PUMS files, tabulations by authors.

population. Thirty percent of the working-age immigrants lacked a regular high school diploma or its equivalent, a ratio that is more than twice as high as that of the native-born population.⁶ One half of these new immigrants had completed at least one year of post-secondary schooling, and nearly one-third of them held a bachelor's or more advanced academic degree. The educational backgrounds of these immigrants have important implications for their labor force behavior because the labor force attachment of immigrants and their incidence of unemployment problems are correlated with their schooling backgrounds.

Better-educated immigrants are more likely to be active in the labor force and they are more successful in obtaining employment when they do seek work.⁷

A relatively high fraction of the new immigrants lack strong English-speaking proficiencies, and an above-average fraction (25 percent) of the new adult immigrants (20 years or older) failed to complete high school in their native countries. The limited English-speaking proficiencies and formal education of many of these new immigrant arrivals will place constraints on their employability, their access to high-skilled occupations and their future earnings. There is a growing need for effective ABE, ESL and workplace literacy programs to boost the human capital skills of these individuals to enable them to contribute more fully to the growth of the Massachusetts economy.

Labor force behavior

The Census Bureau's long-form questionnaire captured information on the labor force status of all working-age household members in the calendar week immediately prior to the week they filled out the questionnaire. The responses to the questions on labor force activity were used to assign immigrants to one of three labor force statuses: employed, unemployed and not in the labor force. As shown in Table 5, at the time of the 2000 Census, nearly 62 percent of all working-age immigrants were actively participating in the civilian labor force, a participation rate that was about six percentage points below that of the state's native-born, working-age population. Immigrant males were considerably more likely to be in the labor force than their female counterparts (69 percent versus 54 percent). The unemployment rate of these new immigrant workers at the time of the Census was 6.8 percent — the immigrant female unemployment rate was just under 8 percent and the immigrant male unemployment rate stood at just under 6 percent. Overall, nearly 58 of every 100 new immigrants were employed at the time of the 2000 Census, though male immigrants enjoyed a 15 percentage point employment rate advantage over their female peers (65 percent versus 50 percent).

Table 5. Labor force status of working-age new immigrants in Massachusetts (16+) at time of the 2000 Census

Labor Force Variable	All	Men	Women
Labor force	178,720	99,821	78,899
Employed	166,625	93,969	72,656
Unemployed	12,095	5,852	6,243
Labor force participation rate (in %)	61.8	69.4	54.4
Unemployment rate (in %)	6.8	5.9	7.9
Employment/population ratio (in %)	57.7	65.3	50.1

Source: 2000 Census of Population and Housing, PUMS files, tabulations by authors.

Part II: Population and labor force changes in Massachusetts, 2000 – 2003

Population analysis

Since 2000, the number of immigrants in Massachusetts has steadily increased. Estimates based on CPS surveys indicate that 116,000 new immigrants were living in the state in 2003. Who are these 116,000 new immigrants who arrived in Massachusetts between 2000 and 2003? To answer this question, we analyzed the monthly CPS public use files for Massachusetts for all 12 months of calendar year 2003. The CPS questionnaire collects data on the nativity status of each respondent, their country of birth, and the timing of their arrival in the United States. We identified the countries of origin of all foreign-born residents of the state in 2003 who reported that they had arrived in the United States between 2000 and 2003. As Table 6 shows, 11 countries accounted for nearly 63 percent of the approximately 115,500 new foreign immigrants residing in Massachusetts in 2003. Brazil was the largest single source of these new immigrants, accounting for one of every five. El Salvador was the next largest source, with nine percent reporting that they were born in this Central American country. Four Asian countries (India, Japan, Vietnam and China) also made the top 11 list, as did two European nations (Poland and Russia) and two Caribbean countries (Haiti and the Dominican Republic). It is interesting to note that Puerto Rico, which, as noted above, was the single largest source of new immigrants in the 1990s, did not make the top ten list for the 2000–2003 period, when fewer than two percent of new immigrants into Massachusetts cited Puerto Rico as their place of birth.

Table 7 shows that males accounted for a majority of new foreign immigrants entering Massachusetts from 2000 to 2003, a substantial majority of whom were of working age, with 83 percent being 16 and older. As expected, a high fraction of these new immigrants were comparatively young, with 56 percent between 16 and 34 years old. Only seven percent of these new immigrants were 55 and older. The fact that whites accounted for just under half of these new immigrants may seem somewhat surprising, given the low numbers of new immigrant arrivals from Canada and Western Europe. However, nearly 20 percent of immigrants were from Brazil, many of whose inhabitants are classified as white rather than Hispanic due to that nation's historic Portuguese ties. Hispanics represented 22 percent of the new arrivals, Asians accounted for another 20 percent and 10 percent were classified as black.

The educational backgrounds of the 96,000 immigrants of working age were quite varied. Nearly one quar-

Table 6. Top 11 countries of origin of new immigrants in Massachusetts in 2003

Country	Percent of New Immigrants
Brazil	20
El Salvador	9
India	6
Japan	5
Haiti	5
Dominican Republic	3
China	3
Canada	3
Russia	3
Vietnam	3
Poland	3

Source: Monthly CPS public use files, 2003, tabulations by authors.

ter lacked a high school diploma, while 45 percent said they had completed one or more years of post-secondary schooling, including 33 percent who reported that they held a bachelor's or more advanced degree. This latter ratio was approximately the same as that for working-age immigrants arriving during the 1990s. Overall, the educational backgrounds of more recent immigrants were somewhat improved over those from the earlier decade, with a higher fraction claiming to have completed high school (77 percent compared to 69 percent). Given that the vast majority of these new immigrants came from non-English speaking countries, English language problems are likely to exist for many of these new arrivals, increasing the demands for ESL and adult basic education services.⁸

Labor force analysis

The monthly CPS labor force survey collects information on the labor force status of each household member 16 and older during the reference week of the survey.⁹ The findings of the 12 monthly CPS surveys for calendar year 2003 were used to estimate an array of labor force activity measures for the new immigrant population within the state. On average, slightly more than 65 percent of these new working-age immigrants were actively participating in the state's labor force during 2003 (Table 8). Of the 63,640 labor force participants, slightly more than 5,800,

Table 7. Demographic characteristics of new foreign immigrants in Massachusetts 2000 – 2003

Characteristic	Number	Percent
All	115,483	100
Men	63,380	55
Women	52,103	45
AGE		
Less than 16	19,686	17
16 – 19	4,988	4
20 – 24	15,415	13
25 – 34	45,158	39
35 – 44	18,755	16
45 – 54	3,078	3
55+	8,403	7
RACE/ETHNIC ORIGIN		
Asian	22,709	20
Black	11,130	10
Hispanic	25,103	22
White (includes Brazilian)	55,897	48
EDUCATIONAL ATTAINMENT (16+)		
Less than 12 or 12, no diploma	21,718	23
High school diploma	30,801	32
1 – 3 years of college	11,750	12
Bachelor's degree or higher	31,041	33

Source: 2003 monthly CPS public use files, tabulations by authors.

Table 8. 2003 labor force status of new immigrants 16 and older in Massachusetts

Variable	Value
Number of new immigrants of working-age	97,623
Number of new immigrants in civilian labor force	63,646
Civilian labor force participation rate	65.2%
Employed	57,835
Unemployed	5,811
Unemployment rate	9.1%
Employment/Population ratio	59.2%

Source: 2003 monthly CPS public use files, tabulations by Center for Labor Market Studies.

or about 9 percent, were unemployed on average during calendar 2003, an unemployment rate that was more than three percentage points higher than that for the state's entire resident labor force. The employment/population ratio for the state's new immigrants was 59.2 percent, implying that nearly six of every 10 working-age immigrants were employed in a typical month during calendar year 2003.

Between 2000 and 2003, the resident civilian labor force of Massachusetts grew by an estimated 103,000, or slightly more than 3 percent. For a variety of reasons, we believe that this estimate is biased upward, particularly given the very slow growth of the state's population over those three years. Because the number of new immigrants in the state's labor force in 2003 was just under 64,000, new immigrants contributed at least 62 percent of resident labor force growth in Massachusetts between 2000 and 2003, and may actually have contributed 90 percent or more. Over the past three years, the number of employed residents is estimated to have declined by 8,000, while the number of employed new immigrants is estimated to have increased by nearly 58,000. Thus, while new immigrant employment rose by 58,000, the number of employed native-born and established immigrant workers must have fallen by at least 66,000.

The sharp rise in the state's unemployment rate from 2.6 percent in 2000 to 5.8 percent in 2003, brought about by a steep decline in payroll employment, was the major culprit underlying the reduction in the pool of native-born workers.¹⁰ The state's teenagers (16 to 19) and its young out-of-school adults (16 to 24), especially those without four-year degrees, were the most adversely affected by the substantial weakening in state labor market conditions over the past three years. But now, not only do these two groups face an especially difficult labor market — they are also in direct competition with new immigrants for a dwindling number of jobs. ◀

ANDREW SUM is director and ISHWAR KHATIWADA and SHEILA PALMA are research associates with the Center for Labor Market Studies at Northeastern University. The research work underlying this article was financed in part by a grant from the Commonwealth Corporation.

Key definitions and data sources

Persons born in one of the territories of the United States (U.S. Virgin Islands, Puerto Rico, Guam) are considered in this paper to be "foreign born."¹¹ A person who emigrates from Puerto Rico to Massachusetts adds to the population of both the state and the nation in the same manner as an immigrant from Canada, Mexico or Brazil. Previous analyses of the demographic/socioeconomic characteristics and labor market, income and poverty problems of immigrants from the U.S. territories have revealed that they are quite similar to those of many other immigrants from Central and South America and the Caribbean. The definition of a "new immigrant" depends on the specific time period being analyzed. When the analysis is focused on the 1990–2000 period, a "new immigrant" is a person who arrived in the United States between 1990 and the 2000 Census. When the

2000–2003 time period is being examined, a “new immigrant” is someone who arrived between 2000 and the time of the monthly CPS household surveys in calendar year 2003.¹²

The estimates of the numbers, characteristics and labor force behavior of new immigrants over the 1990–2000 period are based on the findings of the 2000 Census of Population and Housing. The 5-100 PUMS data files provided by the U.S. Census Bureau are the basis for our estimates of the new immigrant population residing in Massachusetts in 2000. The monthly CPS public use files for calendar year 2003 are the basis for our estimates of the numbers, characteristics and labor force status of new immigrants residing in Massachusetts in 2003.

¹ For an in-depth analysis of foreign immigration developments in Massachusetts during the 1970s, 1980s and the first half of the 1990s, See: Andrew Sum, W. Neal Fogg, et. al. *The Changing Workforce: Immigrants and the New Economy in Massachusetts*, Massachusetts Institute for A New Commonwealth, Boston, 1999.

² For a review of births, deaths, and domestic in- and out-migration developments in Massachusetts over the decade of the 1990s, See: (i) Robert Nakosteen, Michael Goodman, Dana Ansel, et. al., *Mass. Migration*, MassINC, and Mass. Housing, Boston, 2003; (ii) Andrew Sum, Ishwar Khatiwada, Jacqui Motroni, *Moving Out and Moving In: Out-Migration and Foreign Immigration in the Northeast Region and New England during the 1990s*, Report Prepared for the Teresa and H. John Heinz Foundation, Washington, D.C., 2002; (iii) Andrew Sum, Ishwar Khatiwada, Kamen Madjarov, *The Impacts of Foreign Immigration on Population Growth, the Demographic Composition of the Population, Labor Force Growth, and the Labor Markets of the Northeast Region During the Decade of the 1990s*, Report Prepared for Fleet Bank, Boston, October 2003.

³ This estimate is based on the U.S. Census Bureau’s analysis of the findings of the 2000 Census on cross-state movements of the population between 1995 and 2000.

⁴ The impact of new foreign immigration on net population growth is somewhat more difficult to estimate since several previous research studies have found that high levels of foreign immigration in metropolitan areas tend to lead to some out-migration of the native-born. These displacement effects need to be taken into account in estimating the net impacts of foreign immigration on state and local population growth.

⁵ For further details on state labor force developments in the 1990s, See: (i) Andrew Sum, Paul Harrington, Neeta Fogg, et. al., *The State of the American Dream in Massachusetts, 2002*, MassINC and Blue Cross/Blue Shield, Boston, 2002; (ii) Andrew Sum and Ishwar Khatiwada, *Labor Force Developments in Massachusetts During the Decade of the 1990s*, Research paper prepared for the Commonwealth Corporation, Boston, 2004.

⁶ A small subset (less than 5 percent) of those immigrants lacking a high school diploma were attending high school at the time of the 2000 Census.

⁷ For a review of these relationships between labor force behavior and formal schooling among immigrants in Massachusetts and the U.S. in the mid-1990s, See: Andrew M. Sum and W. Neal Fogg, *The Changing Workforce....*

⁸ Unlike the long-form questionnaires used in conducting the 2000 Census, the monthly CPS labor force questionnaire does not capture information on the self-reported English-speaking proficiencies of respondents.

⁹ The reference week of the CPS survey is the calendar week immediately preceding the survey. The reference week is the calendar week containing the 12th of the month.

¹⁰ This estimate of employment decline is much smaller than that generated by the CES payroll employment survey. Between the first quarter of calendar year 2001 and the third quarter of calendar year 2003, the number of wage and salary workers on the payrolls of private sector firms and government agencies in Massachusetts is estimated to have declined by nearly 193,000, while the LAUS employment decline for the same time period is only 56,000.

¹¹ Persons born outside the U.S. but to U.S. parents temporarily living abroad are classified as native-born individuals in this paper.

¹² The CPS household survey is a national labor force survey of approximately 60,000 households that is conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. Typically, 1,300 households are surveyed per month in Massachusetts. For details on the number of households in the CPS survey, See: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 2003, Appendix A, Washington, D.C., 2003.

